

### **CLAIMS**

1. Capsule (1) for the electronic identification of ruminants, adapted to be administered orally and to be housed in the animal's second stomach (reticulum or reticulo-rumen), said capsule comprising a body (2), of ceramic material resistant to the animal's gastric juices and provided with a cavity (3) to enclose a data exchange device (4), characterised in that :

- the ceramic material of the capsule body comprises a compound of a non-ferrous element of a density equal to or over  $4 \text{ g/cm}^3$ ;
- the specific gravity of said body is equal to or 3;
- the total weight of the capsule is comprised between 8 g and 90 g;
- the effective weight of the capsule between 5 g and 85 g; and
- the capsule is oblong-shaped, cylinder-like with slightly rounded edges with a diameter comprised between 8 mm and 25 mm and a length comprised between 30 mm and 110 mm.

2. Capsule (1) according to claim 1, characterised in that the ceramic material of the body (2) comprises zirconium oxide ( $\text{ZrO}_2$ );

3. Capsule (1) according to claims 1 and 2, characterised in that the composition in zirconium oxide is comprised between 30% and 80% by weight, and the specific weight between 3.5-4.0.

4. Capsule (1) according to any of the preceding claims, characterised in that the ceramic material that constitutes the body (2) comprises one or more of the following components: silicon oxide from 17-50% by weight; magnesium oxide from 0.02-0.05% by weight; aluminum oxide from 3-6% by weight; calcium oxide from 1.20-2.60%; potassium oxide from 0.12-0.40% by weight; titanium oxide from 1.00-3.20% by weight; sodium oxide from 0.01-0.03% by weight; iron oxide from 0.02-0.15% by weight; and phosphoric oxide 0.01-0.03% by weight.

5. Capsule (1) according to claim 1, characterised in that the ratio between the length and diameter of the capsule is comprised between 3-6 and preferably in a value close to 4.5.

6. Capsule (1) according to any of the preceding claims 1 to 5, for ruminant animals weighing over approximately 25 kg, characterised in that the length of the body (2) is comprised between 50 mm and 110 mm, the diameter between 12 mm and 25 mm; the total weight between 40 g and 90 g; and the effective weight between 35 g and 85 g.

7. Capsule (1) according to any of the preceding claims 1 to 5, for ruminant animals weighing under approximately 25 kg, characterised in that the length of the body (2) is comprised between 35 mm and 75 mm, the diameter comprised between 8 mm and 15 mm; the total weight is comprised between 8 g and 50 g; and the effective weight is comprised between 5 g and 45 g.

8. Capsule (1) according to any of the preceding claims, characterised in that it is fitted with an elastic element (5), arranged in at least one of the rounded ends of the body (2) and secured by a bracket (6) of biodegradable material.